

A Seemingly Inanimate Companion

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Every Monday, Wednesday and Friday afternoon, over five hundred students cram into the stuffy lecture hall of Noyes Laboratory and learn why chemistry is beautiful. There, benzene molecules are “gorgeous” and those killer problems on the last exam are deemed “well-crafted,” making you almost appreciate the fact that they gave you such a hard time. Dr. Kelly Marville is the one working to relay the intricacies of CHEM 104 to this class of cramped students. With her perplexing accent (which students later found to be from Barbados) she lauds the logic and beauty of the subject. However, to her chemistry isn’t just a subject, it’s a living being, her oldest friend.

“Most students laugh when I describe chemistry as a person rather than a thing. I suppose I would say it’s a person because it became something that saved me from myself.” Marville confesses this in her office, sporting her usual business casual attire made sassy with a short leather jacket. “Chemistry has solidified me. I’m very good at it. I’ve been so many places, but it’s been this companion that has stuck with me since high school.”

When she was seven, growing up in Barbados, she came home from school one day to find her mother in tears, her house emptied out and her father gone. He took almost everything, but left the unpaid bills and three daughters. Marville’s mother took on two jobs cleaning peoples’ houses, but she became very sick. The two oldest daughters, Andrea and Jackie, had to abandon their dreams of college in order to find jobs and pay off the bills that were piling up at the door.

“When you don’t know where your next meal will be,” Marville explains, “you begin to get very down.” During that time of turmoil, Marville says she could have taken a very different path, perhaps a dark path. “It was a chemistry teacher that reached out to me. He pushed me to be better despite things being pretty bad at home.” During lunch, the high school chemistry teacher would talk to her. He discovered that she had a predisposition for chemistry and began giving her material that was advanced for her grade.

However, while her chemistry teacher fed her mind, Marville’s stomach remained empty. One of her friends, Renni, realized that Marville wasn’t bringing lunch to school. And suddenly, sandwiches wrapped in foil appeared in Marville’s backpack. “I didn’t even ask. Someone could have poisoned me. But I ate like a crazy person; I was so hungry.”

They never spoke of it, but the act solidified their friendship.

When Marville finished high school, she didn’t think her path would lead to higher education. Despite being a fantastic student and receiving offers from many schools, there were still bills to pay and house that was falling apart around her family. She began applying for jobs in Barbados, but her oldest sister, Andrea, stopped her.

“You are good at school, better than we ever were. We will do what we need to do. You already got a scholarship. You are going to be the one who will finish school.”

And with that, Marville went to college, finishing her Bachelor’s degree in Chemistry at University of the West Indies and her Ph.D. at University of Toronto. Her journey shifted to the U.S. after a presentation she did for her Ph.D. brought on a job offer with Novartis Pharmaceuticals in Florida.

She loved research. She was synthesizing lucrative compounds and things were going well. She was set on getting her family out of poverty, on making life better for them. However, her job became her obsession and denatured her pure intentions.

“If I could really be quite honest, and I try to be very honest with myself, I would say if I looked back at myself, when I was really driven by research and getting publications and trying to just get ahead at all costs, I would say I wasn’t a good person. It wasn’t like I was vindictive or anything, just that my priorities were pretty screwed up. I hardly saw my family.”

For a year and a half while she continued research, Marville didn’t interact with her family beyond sending them money. However, her time with Novartis was cut short when a chigger bite triggered a severe immune response. She had to leave her job and go home to Barbados, where she was confined to a wheelchair for months due to inflammation in her legs. Her family helped her recuperate, getting her into bed and to the bathroom, trying to figure out the next step. To Marville, though, there was no next step. She couldn’t do what she loved, what she was good at. She was confined to a bed, unable to use her mind, going crazy.

But her family persisted, and under their care she slowly recovered. “When I was really obsessed with publications, I hardly gave them the time of day. But they embraced someone that really didn’t deserve it.”

In the meantime, her friend Renni was once again helping Marville. This time, Renni did not sneak sandwiches into Marville’s backpack, but instead applied for a chemistry teaching position on Marville’s behalf. “Without my permission,” Marville adds.

With cane in hand, Marville went to the first interview and did a “piss-poor” job. She didn’t want to teach. She wanted to return to the lab. However, despite her best efforts to fail, she was hired at one of the best schools in Barbados, Harrison College. Against her wishes, she began to teach.

A few weeks into the job, Marville’s mother noticed a change come over her daughter.

“You look happy.” Her mom observed.

“Don’t be ridiculous,” Marville retorted. “I can’t be happy. I’m not in the lab.”

Marville eventually had to admit she loved teaching. Her students were motivated and wanted to learn. But the position was only open for a semester. Novartis called and asked when Marville would return to the lab. Surprising everyone, she

turned down the offer in order to continue teaching.

The next part of her journey brought her to schools in some of the toughest, most impoverished communities in America.

In Kentucky, students weren't expected to live beyond eighteen, due to the fact that most of them were involved in gangs or drugs. The principal of the school had given up, deciding that kids couldn't learn. To him, the only purpose school had was to keep kids from killing each other. Marville saw things differently. She revamped the chemistry department, worked weekends and was able to allow students to do their first lab in years.

In Montana, she taught on a reservation. While the freezing fog made her nose bleed, she again reworked a non-existent syllabus, and was able to inspire some students to love chemistry as much as she did. "I was able to take them so much higher than persons ever expected them to be. Which is what my chemistry teacher did for me. He saw something in me that I didn't see in myself." She tends to gravitate toward places that reflect her own past. "Some people think that U of I is a strange choice, that the students are more motivated and everything. But I don't know." What she does know is that she'll move on when she feels she's not needed anymore, when she thinks there are other places that she could do good.

"I think I'm happier now than I ever was when I was making a lot of money. I'm still on the journey, still trying to figure out myself and be the best person I can be, make my family proud." She talks to her mom everyday on the phone, and was able to help her begin a catering business so she could stop cleaning houses. Both of her sisters were able to go back to school. One has become an accountant; the other, a jeweler. A new house was built to replace the roof riddled with holes and the floorboards that gave way underfoot. Marville explains that it was very emotional to tear down the old house. It was the end of an era, an era that she got through with that faithful friend, chemistry.

When asked what the most beautiful aspect of her companion was, she responded that what she found to be breath-taking was the logic of it all. That there were molecules in everything, performing a specific task, doing what they were meant to do, amazed her. It wasn't just the beauty of chemistry, but the comfort as well that inspired this love. "When things were uncertain outside, uncertain about how bills would be paid, where meals would come from, I knew that chemistry would be this logical thing that would happen. This would be the thing that wouldn't let me down. It would be there. Chemistry is still my friend, my companion, helping me find my way."

She always hopes to instill this idea in her students, that education is a lot more than just grades, that it can really transform your life. It did so for hers, and she hopes through her teaching that it can do so for others.